Request to Archive
With The National Centers for Environmental Information
For AMSU-A Gridded FCDR
Provided by STAR

2016-06-17

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

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2. Name the organization or group responsible for creating the dataset.

DOC/NOAA/NESDIS/STAR > Center for Satellite Applications and Research, NESDIS, NOAA, U.S. Department of Commerce

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

Based on requirement from NCEI CDR management, daily gridded brightness temperatures were created from the IMICA calibrated AMSU-A FCDR which is currently archived in NCEI CDR program. The data were created in order to make the AMSU-A FCDR datasets easier for application. There are three types of gridding approaches: brightness temperatures of near-nadir FOVs only,brightness temperature of FOV with minimum viewing zenith angle, and average brightness temperatures of FOVs from multiple scan positions. The daily gridded brightness temperature FCDR products include 11 channels (channels 4-14) of AMSU-A from 6 polar orbiting satellites onboard NOAA-15, NOAA-16, NOAA-17 NOAA-18, MetOp-A, and EOS Aqua, for both ascending and descending orbits, respectively. The grid resolution is 1x1 with global coverage.

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

From 1998-10
Ongoing as continuous updates to the data record

5. Edition or version number(s) of the dataset:

version 1.0

6. Approximate date when the dataset was or will be released to the public:

2016-07-31

7. Who are the expected users of the archived data? How will the archived data be used?

CDR data developers can use the gridded FCDR data to generate climate data time series for climate change studies. Weather forecasting users can use the data to validate model prediction, and monitor weather events

8. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?

The data were not evaluated by users, but it is required by NCEI CDR program. So NCEI participated in the design review.

9. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?

The gridded AMSU-A FCDR is produced from the NOAA IMICA calibrated brightness temperature FCDR currently archived at NCEI CDR Program. The daily gridded data are sort of new data, but its input is well understood in previous submission.

10. List the input datasets and ancillary information used to produce the data.

The input data name is 'AMSU Brightness Temperature - NOAA' under the NCEI archive with website address: https://www.ncdc.noaa.gov/cdr/fundamental.
All channels and all satellites in the data 'AMSU Brightness Temperature - NOAA' were used for generating corresponding daily gridded AMSU-A FCDR

11. List web pages and other links that provide information on the data.

The website https://www.ncdc.noaa.gov/cdr/fundamental for data name 'AMSU Brightness Temperature - NOAA' provide the information on the input source. Since only gridding were conducted on the input data, scientific information of the gridded data is the same as the input data.

12. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.

1. The following documents will be submitted:
   Climate Algorithm Theoretical Basis Document (C-ATBD)
   Data/process flow diagrams
   Source code
   maturity matrix

13. Indicate the data file format(s).

1. netCDF-4

14. Are the data files compressed?

netCDF-4/HDF5 compression

15. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

NESDIS-STAR_FCDR_AMSU-A_L3_SSS_NYYMMDD.nc

SSS: short name of satellite, i.e. N15, N16, N17, N18, M02, AQUA
N: ascending/descending, A for ascending, D for descending.
YYYYMMDD: time (year, month, day)
For examples, the AMSU-A daily gridded FCDR data file for 10/26/2015, ascending node, is NESDIS-STAR_FCDR_AMSU-A_L3_N18_A20151026.nc; the AMSU-A daily gridded FCDR data file for 10/26/2015, descending node, is NESDIS-STAR_FCDR_AMSU-A_L3_N18_D20151026.nc.

16. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

Sample data, if requested, will be placed on STAR server for pull. The server address is ftp://ftp2.star.nesdis.noaa.gov/smcd/wwang/

17. What is the total data volume to be submitted?

Historic Data: all historic data or data submitted as a completed collection.

Total Data Volume:	150GB
Number of Data Files:	48708

Continuous Data: data volume rate for a continuous data production.

Total Data Volume Rate:	0.75GB per Month
Data File Frequency:	240 per Month
Data Production Start:	2016-06-01

18. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

The data will be updated every month when new data are accumulated for a month. Raw AMSU-A level-1b will be accumulated at STAR for a month. Then the raw data are processed to generate IMICA calibrated AMSU-A FCDR, and then they are gridded to generate gridded FCDR for the whole month. The processed data for the month will be delivered to NCEI.

19. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location:	College Park, Maryland
System Name:	ftp2.star.nesdis.noaa.gov
System Owner:	DOC/NOAA/NESDIS/STAR > Center for Satellite Applications and Research, NESDIS, NOAA, U.S. Department of Commerce
Additional Information:	server ftp address: ftp://ftp2.star.nesdis.noaa.gov/smcd/wwang/

20. What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PULL

21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

22. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

No known constraints apply to the data.

23. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

The dataset is required by NCEI CDR program, which is based on user requirement.

24. Are the data archived at another facility or are there plans to do so? Please explain.

No

25. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

Work agreement was established between NCEI and STAR to develop and archive the gridded AMSU-A FCDR products. Candace Hutchins and Hilawe Semunegus are the POC ate NCEI

26. Do you have a data management plan for your data?

The NOAA AMSU-A FCDR are currently produced monthly at STAR and delivered to NCEI. The gridded AMSU-A FCDR will follow the same procedure. Once new AMSU-A FCDR are generated for a particular month, gridded AMSU-A FCDR will also be generated and then delivered to NCEI at the same time. After the delivery, both AMSU-A FCDR and gridded FCDR will be deleted form the STAR server, since no extra disk space to store these data at STAR.

27. Have funds been allocated to archive the data at NCEI?

NCEI had provided funds to support the algorithm development and archiving of the gridded data.

28. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

N/A

29. Is there a desired deadline for NCEI to archive and provide access to the data?

No deadlines for archive or access.

30. Add any other pertinent information for this request.

None